Control Methods for Phragmites

Primary Control Strategy

Wear out the root system!

Phragmites: a formidable foe

mid-late March

April

July

Control Methods

- Mechanical
- Biological
- Chemical
- Fire
- Combination of above

Mechanical Control

- Frequent mowing:
  - Reduces ability of plant to produce food and recharge rhizomes; goal is to eventually deplete stored root carbohydrates
  - May take 3-4 years (or longer) of repeated mowing
  - Most effective in August and September
  - Access usually is a problem

Mechanical Control

- Disking:
  - May reduce stem density if done in late summer or fall.
  - Goal is to break up rhizomes into short, non-viable segments; can cause increased sprouting.
  - Rhizome fragments exposed may dry out or freeze; if buried deeply enough, some may not send buds to the surface.
  - Access usually is a problem.
  - Low success rate; can cause Phragmites increase.

Other Mechanical Control Approaches Attempted

- Black plastic
- Bulldozing
- Flooding (salt and fresh water)
- Root barriers

Biological Control

- Currently in experimental stages; root and shoot boring insects that feed on Phragmites are being investigated.
- Cornell University
- University of Florida
- Not yet feasible as control measure but some potential exists.

Fire and Phragmites

Used alone, fire may increase amount of Phragmites; used with herbicides, fire may improve herbicide effectiveness and increase rate of recolonization by native marsh plants.

Chemical Control

Two choices of EPA-approved chemicals for foliar application in wetland settings:

- glyphosate (Rodeo®, AquaNeet®, GlyPro®)…landowners may apply
- imazapyr (Habitat®)…application by professionals only
- mix at 1-2%
- use correct surfactant at 0.5% to 1%
- by law, applicators must follow all label instructions

Aerial application of herbicide to control Phragmites

Support vehicles for aerial application of herbicide to control Phragmites

Controlling Phragmites using herbicide applied from portable sprayer mounted in pick-up truck

Boat-based portable spray rig for controlling Phragmites


Success! Native vegetation returns after controlling Phragmites with herbicide

Control Summary

- Chemical control of Phragmites is currently the only practical / effective method at most scales.
- Small-scale (under ½ acre) control may be practical using ground-based spray methods.
- Work together with nearby landowners to develop cost-effective aerial control contracts; follow-up with ground-based treatments.
- Biological control holds some promise but is “on the horizon” at best.